

***Objects
Labels
Rules***

EST2 System Components

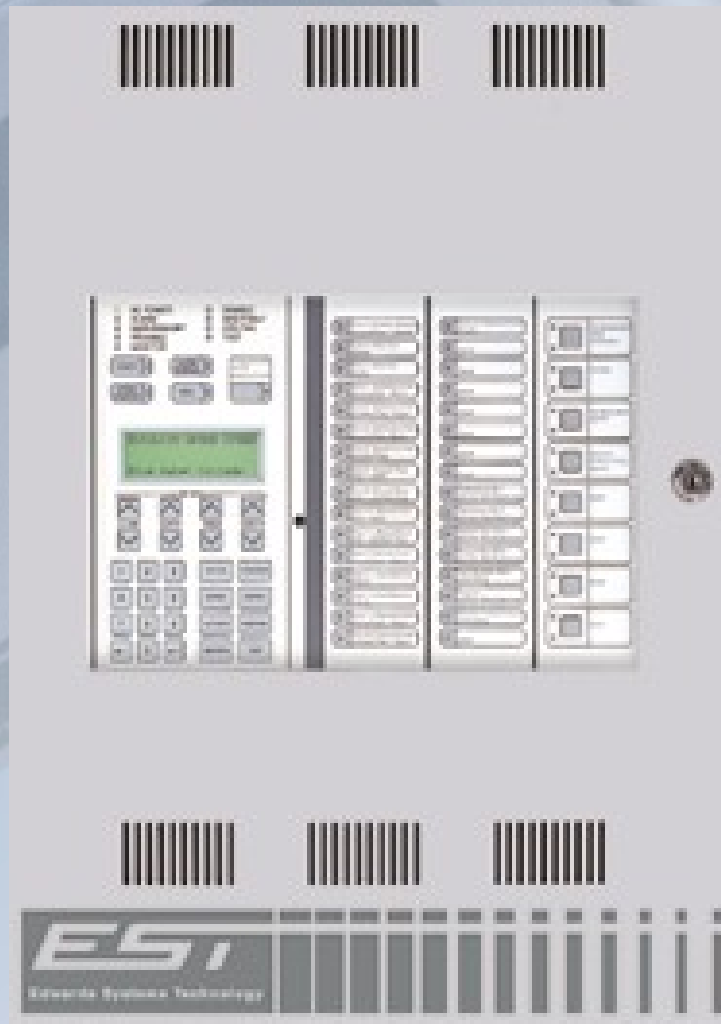
EST2 Networking

SDU Programming

2-WB wall box

2-
WBD

inner and
outer
door



2-WB

2-PPS

2-MCM(N)

2-LCX

Battery

2-WB Cabinet

Supports:

1 ea. 2-PPS

1 ea. 2-MCD or 2-MCMN

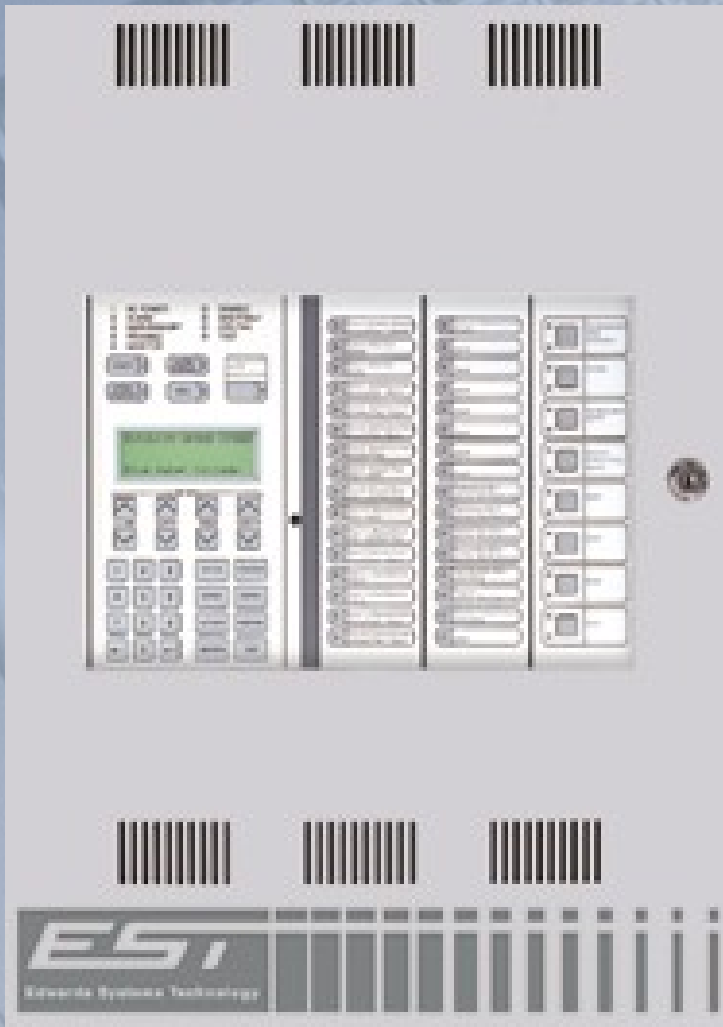
**1 ea. 2-LCX
(optional)**

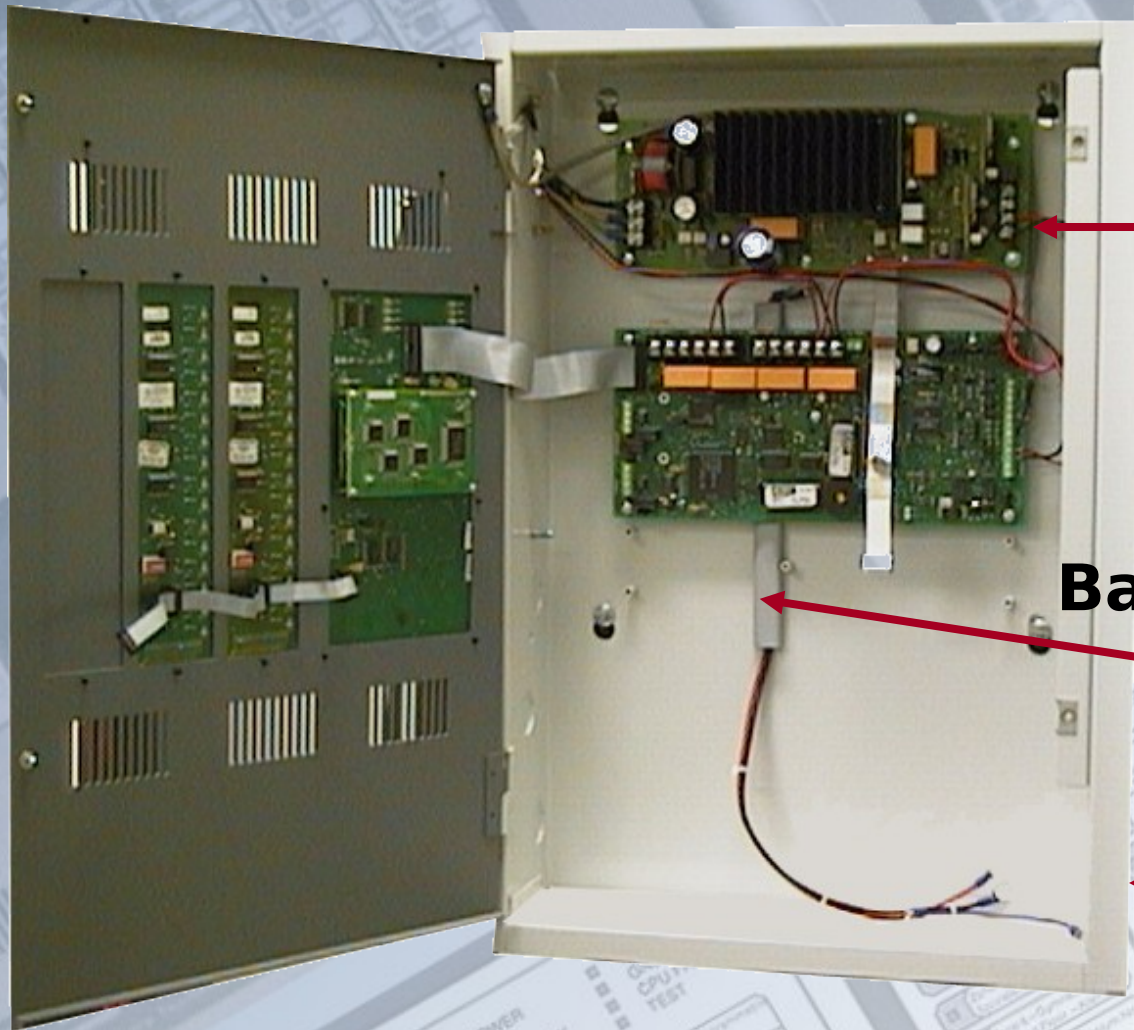
2- WBD

**2-WBD Outer and Inner
Doors support:**

1 ea. 2-LCD (included
with the 2-MCD; optional
with the 2-MCMN)

**3 ea. LED/Switch
Modules**





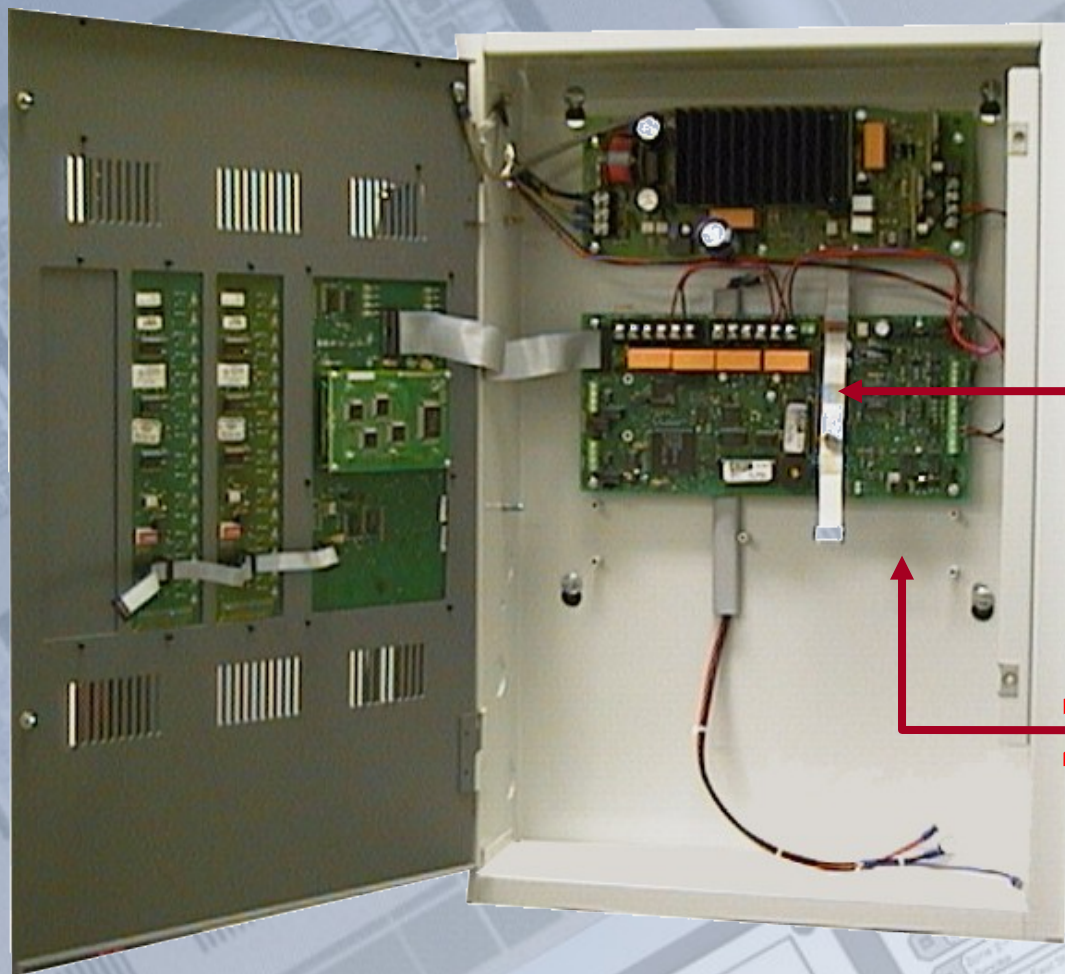
**2-PPS
Primary
PS**

**Battery Cable
Conduit**

**Back
Plate**

**Inner
Door**

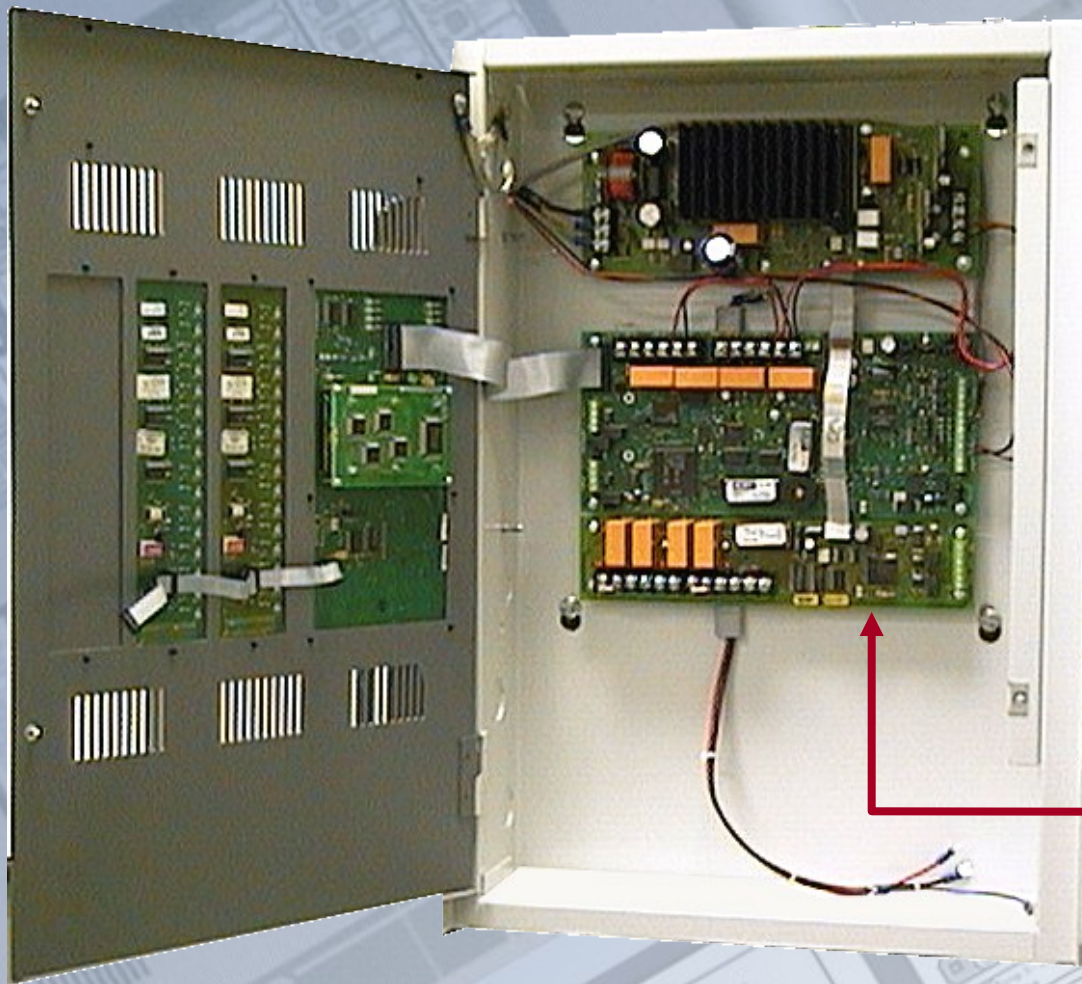
2-WB



**Ribbon
Cable**

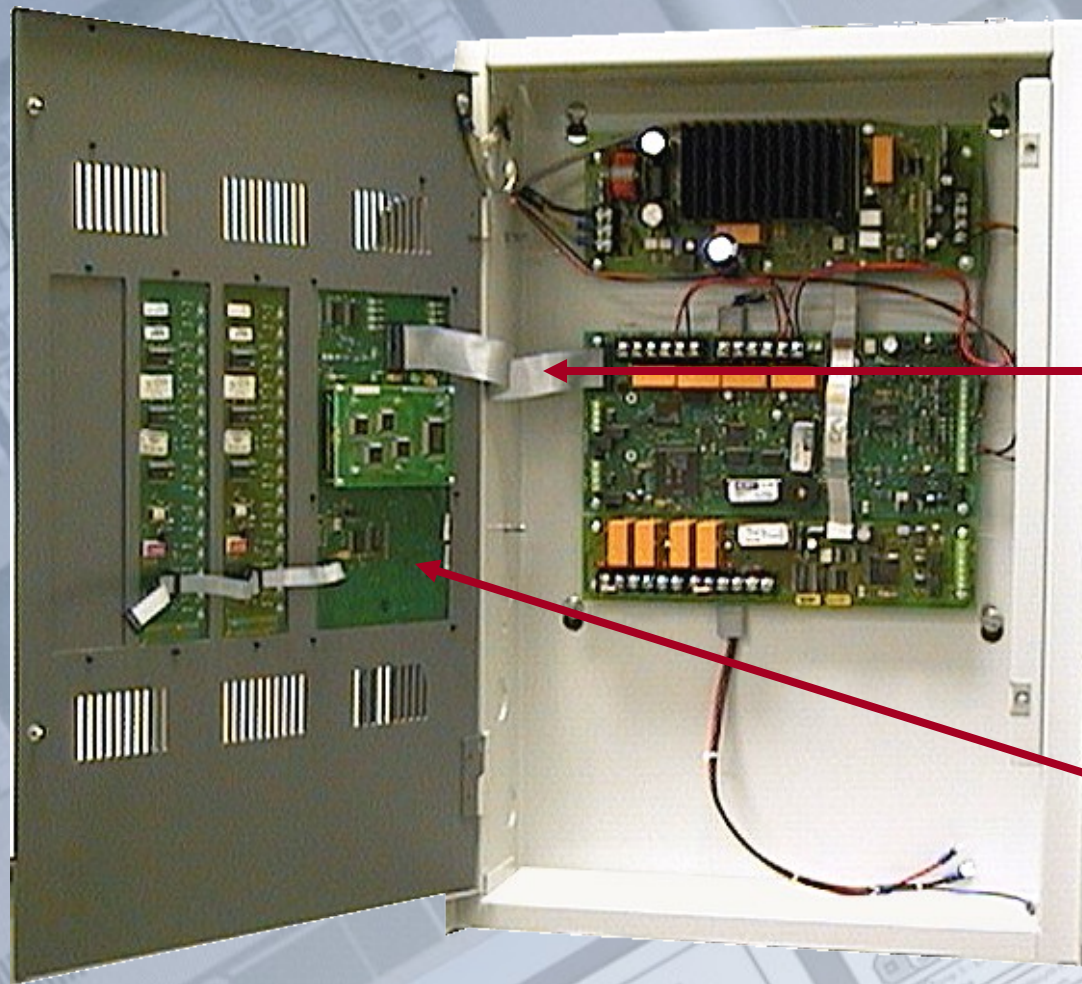
2-MCM(N)

The 2-MCM is the Main Control Module. It contains the Main CPU and Signature Loop Controller. It connects to the 2-PPS via a ribbon cable. The 2-MCM has **two onboard hardwired NAC circuits**. It also supports **one Signature Data Line** with up to **96 Detectors** and **94 Module Addresses**.



2-LCX

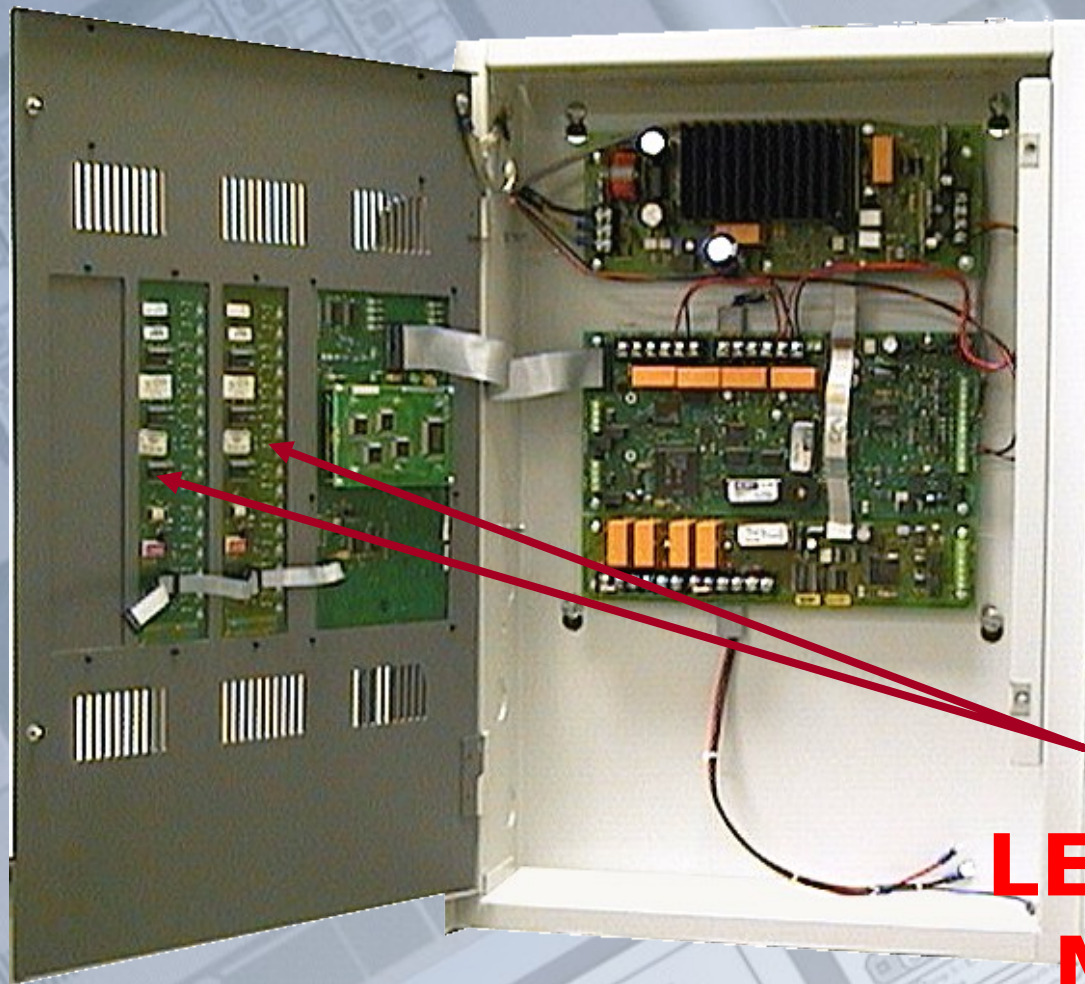
The 2-LCX Expander Loop Module is a add-on module if you require more points than the 2-MCM can support. It contains a **Signature Loop Controller**. The 2-LCX supports an additional **Signature Data Line with 96 Detectors and 94 Modules**. It also provides **2 hardwired NAC circuits**.



**Ribbon
Cable**

2-LCD

The 2-LCD Display, which provides operator interface, is mounted on the inner door. It is connected to the 2-MCM via a ribbon cable.



**LED
LED/Switch
Modules**

Up to 3 LED Annunciator Modules or LED/Switch Modules may be installed on the Inner Door of the WB and WB3. Blank plates are available to fill in unused spaces.

2-WB3

SUPPORTS

1. Up to 3 LED or LED/Switch Modules.
2. Either the 2-TEL or 2-MIC Module.
- 3.3 Option Modules
(2-LCX, 2-AAC, SIGA-AAxx
Amplifier).



2-WB3

2-PPS

2-MCM(N)

2-LCX

2-AAC

SIGA_AAxx

Battery

2-WB3 Cabinet supports:

1 ea. 2-PPS

1 ea. 2-MCD or MCMN

1 ea. 2-LCX (optional)

1 ea. 2-AAC

1 ea. SIGA-AAxx

2- WB3D

**2-WB3D Inner and
outer doors support:**

1 ea. 2-LCD

**3 ea. LED/Switch
Modules**

1 ea. 2-TEL or 2-MIC



2-WB7

SUPPORTS

1. Up to 6 LED/Switch Modules.
2. Both the 2-TEL or 2-MIC Module.
3. MCM or SIGA-APS Auxiliary PS
4. 6 Option Modules (2-LCX, 2-AAC, SIGA-AAxx Amplifier).



2-PPS

**2-PPS or
APS**

2-MCMN

**2-MCMN or
SIGA AAxx**

2-LCX

**2-LCX or
SIGA AAxx**

2-AAC

SIGAAAx

SIGAAAx

Battery

2-WB7

**2-WB7 Cabinet
supports a
combination of
modules as
diagrammed**

2-WB7D

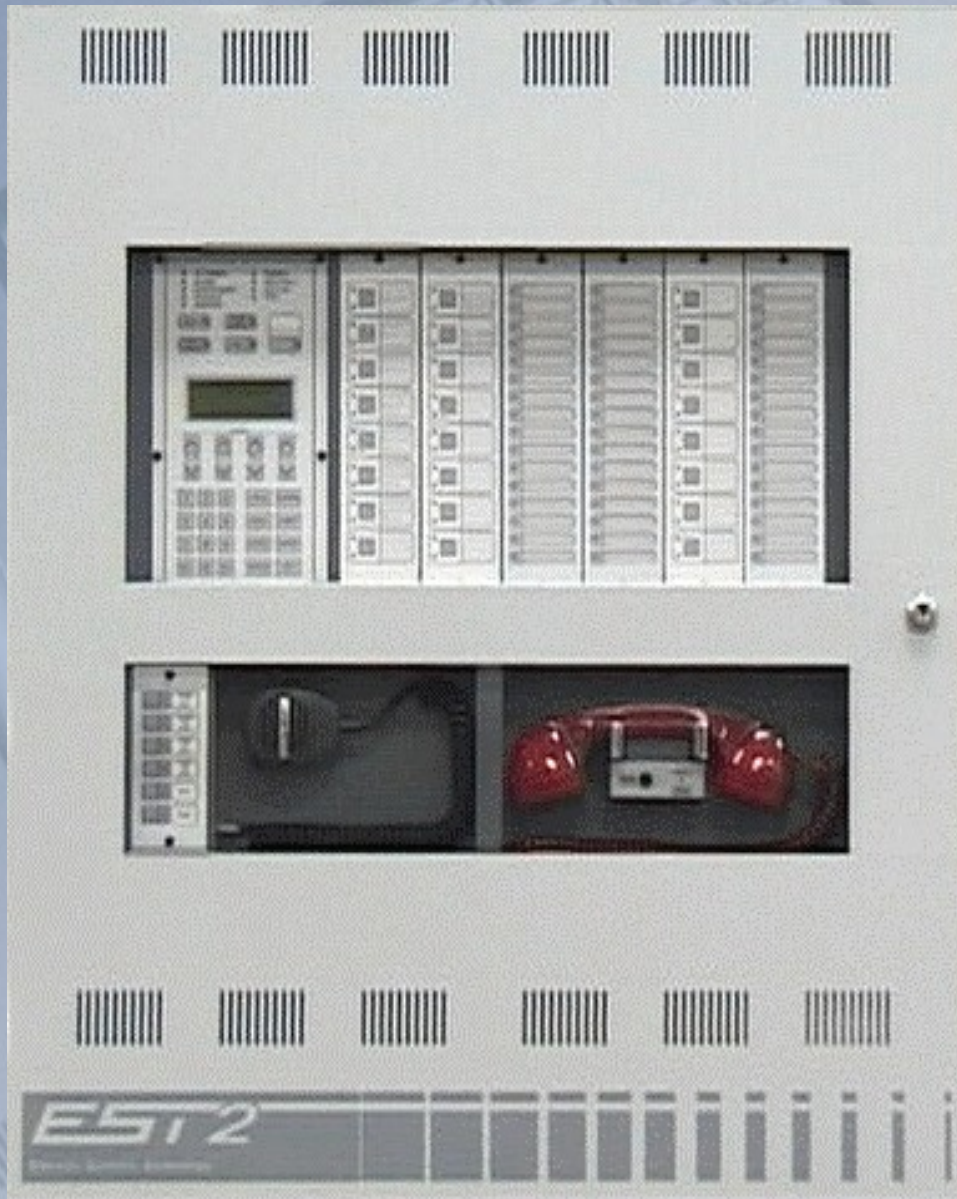
**2-WB7D Inner and
outer doors
support:**

1 ea. 2-LCD

**6 ea. LED/Switch
Modules**

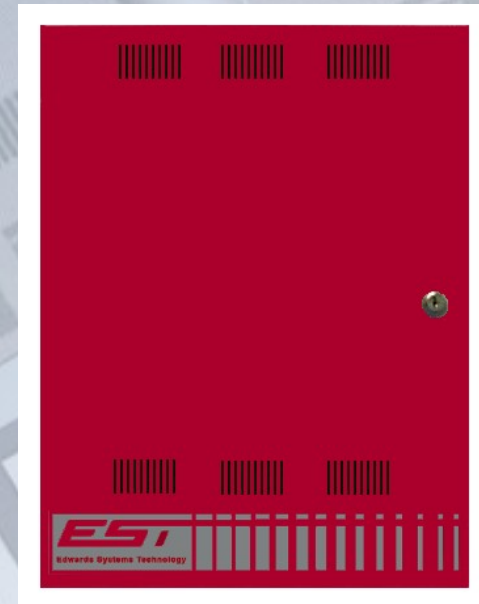
1 ea. 2-TEL

1 ea. 2-MIC



RACCR

- **RACCR**
 - **A Remote Audio Closet Cabinet (Red)**
 - **Use to mount SIGA-APS for remote use with distributed amps (SIGA-AAxx series) or Integrity Signaling Appliances**



RACCR

2-PPS

SIGA-AAxx

**SIGA-
AAxx**

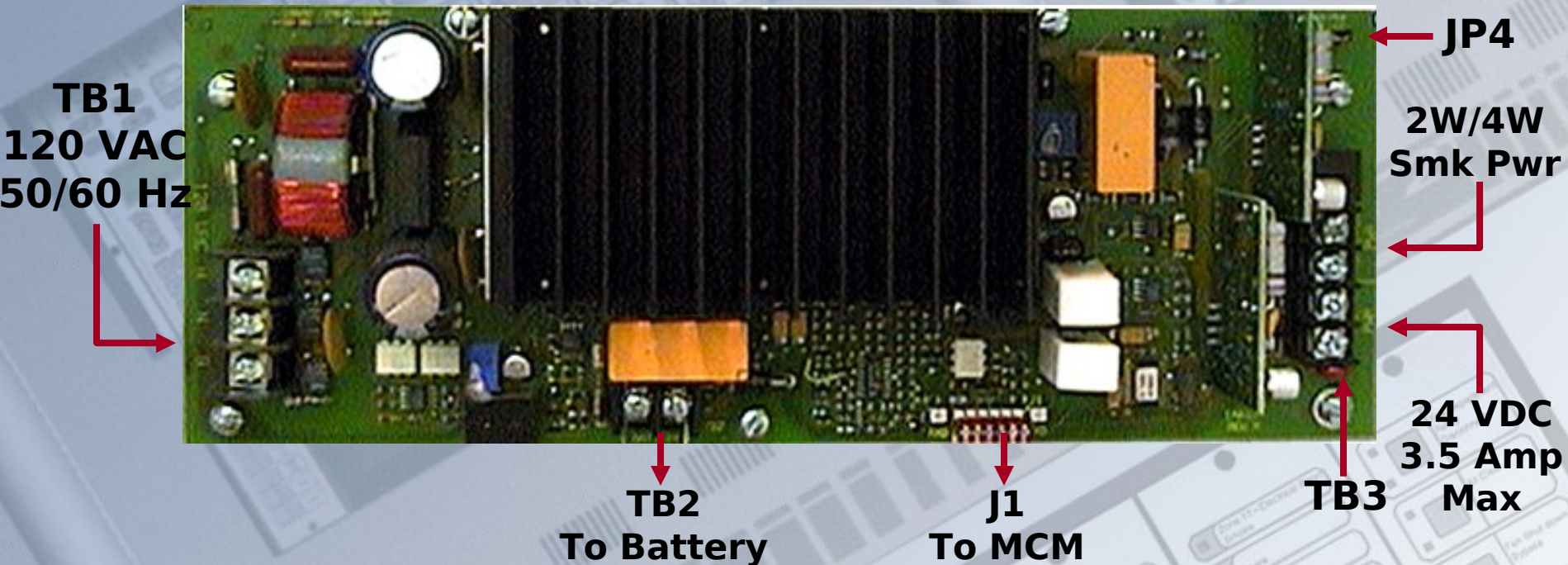
Battery

**Remote Audio Closet
Cabinet Supports:**

**1 ea. 2-PPS Power
Supply**

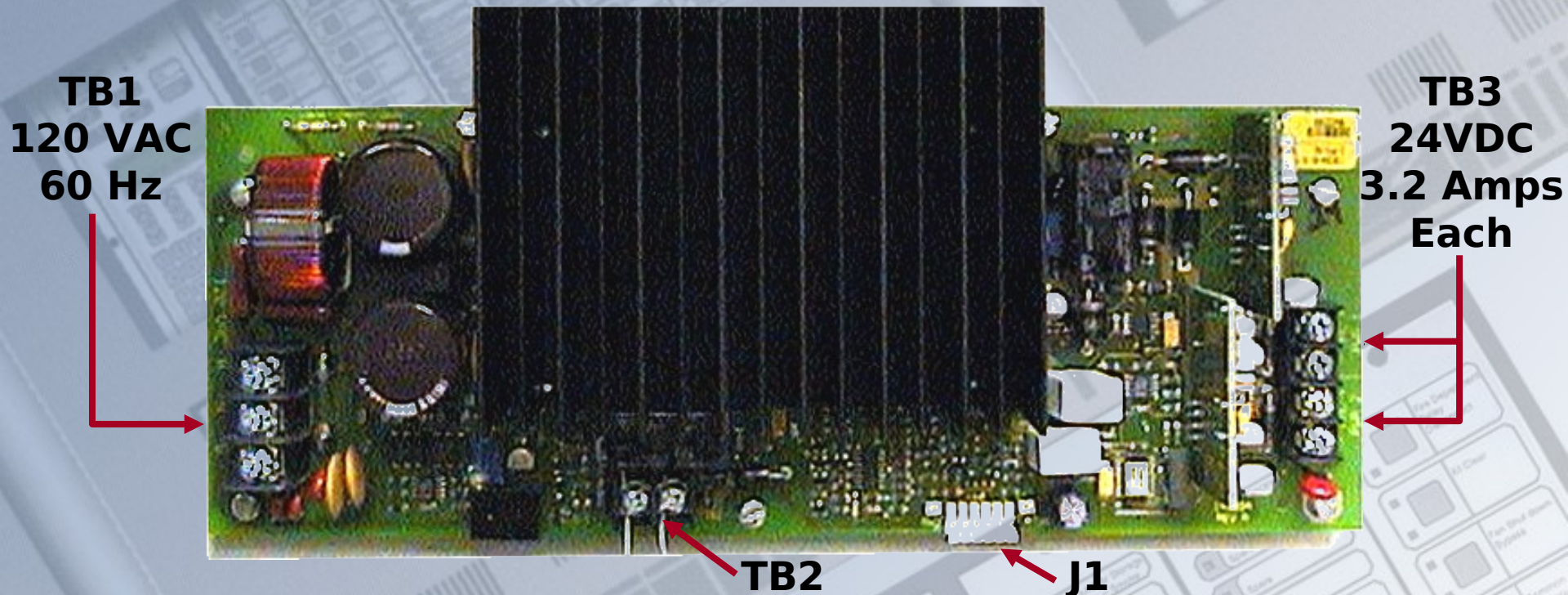
**2 ea. SIGA-AAxx
Amplifiers**

2-PPS Primary Power Supply



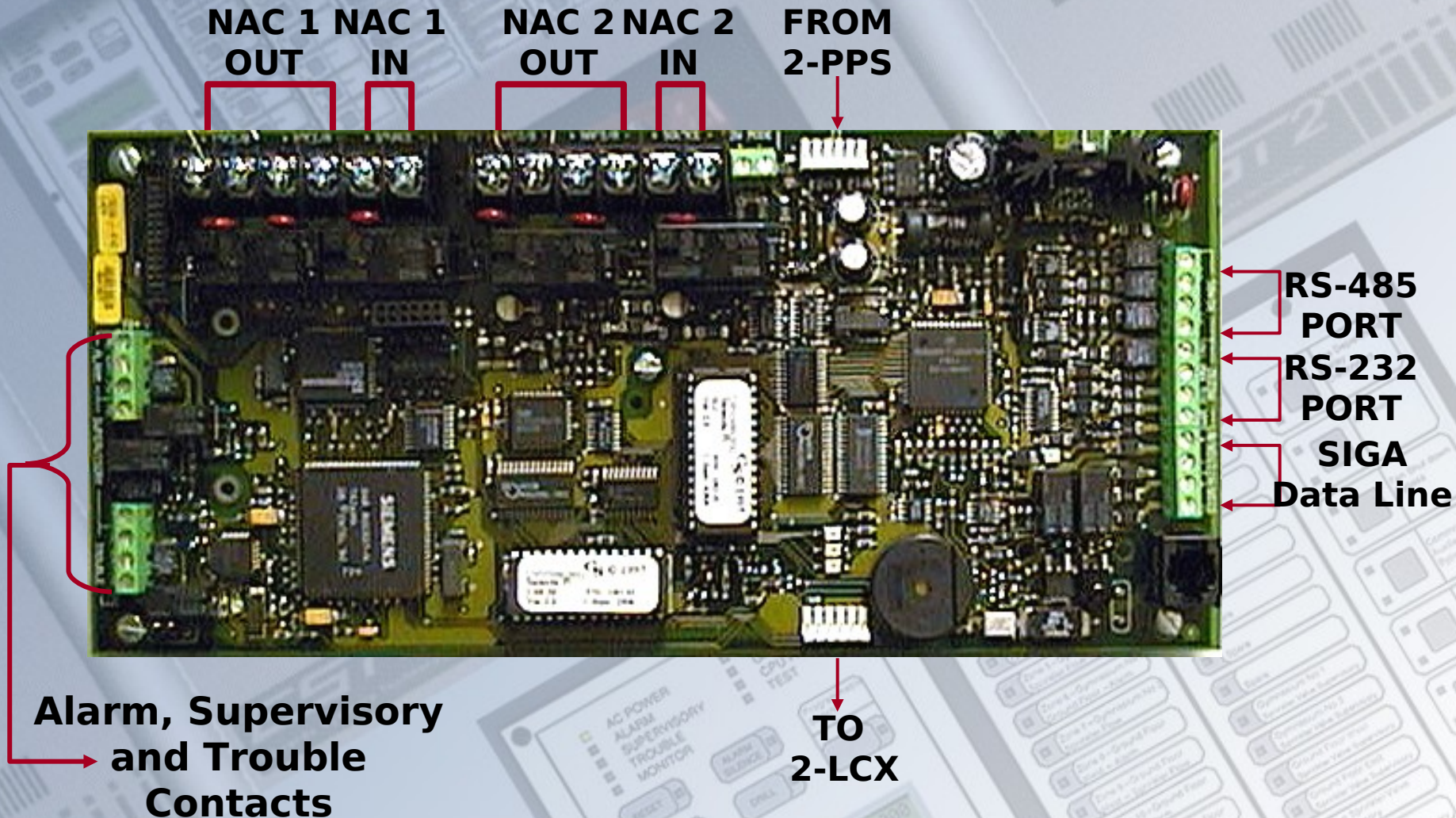
1. TB1 - Connects 120 VAC 50/60 Hz primary power.
2. TB2 - Connects Batteries to charger.
3. TB3 - Power Limited 24VDC output terminals.
Top Half - 24VDC 500ma for 4-wire smokes or 2-wire smokes
Bottom Half - 24VDC 3.5A for hardwired NAC's on 2-MCM or 2-LCX.
4. J1 - Ribbon cable connection to 2-MCM.
5. Ground Fault testing is performed by the power supply.

2-PPS/6A Primary Power Supply



1. TB1 - Connects 120 VAC 60 Hz primary power.
2. TB2 - Connects Batteries to charger.
3. TB3 - 24VDC 3.2 Amps output terminals.
4. J1 - Ribbon cable connection to 2-MCM.
5. The supply powers system electronics and provides power limited outputs for the NAC's. Ground Fault testing is performed by the power supply.

2-MCM Main Control Module



NOTE: The 2-MCM provides plug-in points for the DL2 Dialer and a RS-485 Isolator card

2-MCM Main Control Module

The 2-MCM is actually two computers in one.

- 1. The Control CPU which receives all inputs and determines outputs.**
- 2. The Signature Loop Controller (SLC) which performs two functions:**
 - a. Communicates and controls all the Signature Devices on the Signature data line.**
 - b. Interfaces with the Control CPU by transmitting and receiving data concerning the Signature Devices.**

2-MCM Main Control Module

2-MCM Control Module

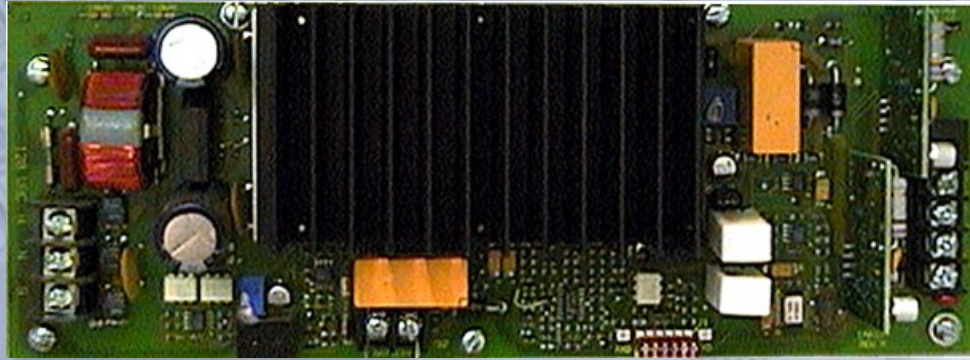
A. Signature Loop Controller

- 1. Supports 96 Signature Detectors
Supports 94 Signature Modules**
- 2. Provides RS-232 and RS-485 terminals**

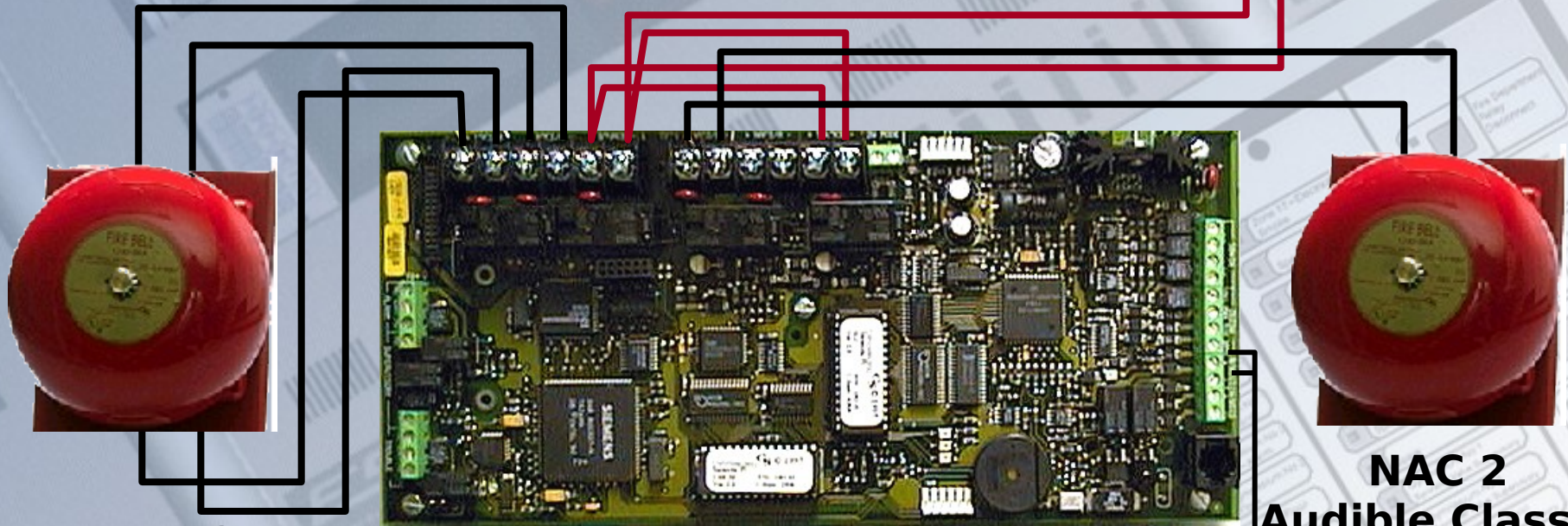
B. Two hardwired NAC Circuits

- 1. Defaulted audible**
- 2. Class A or Class B**
- 3. EOL Class A or Class B 15K Ohms**
- 4. Maximum resistance and capacitance same as 2-MCM**

2-MCM/2-PPS Application



**24 VDC
3.2 Amps**



NAC1

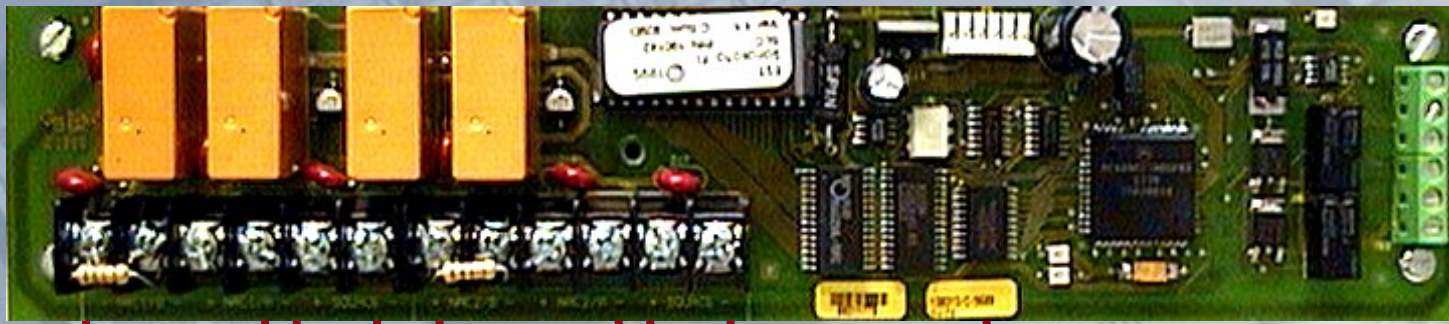
**Audible Class A
15K EOL at Return
Terminals**

NAC 2

**Audible Class B
15K EOL at Device**

Signature Data Line

2-LCX Expander Loop Module



2W Mode
SIGA
Data Line

NAC 1 OUT
NAC 1 IN
NAC 2 OUT
NAC 2 IN

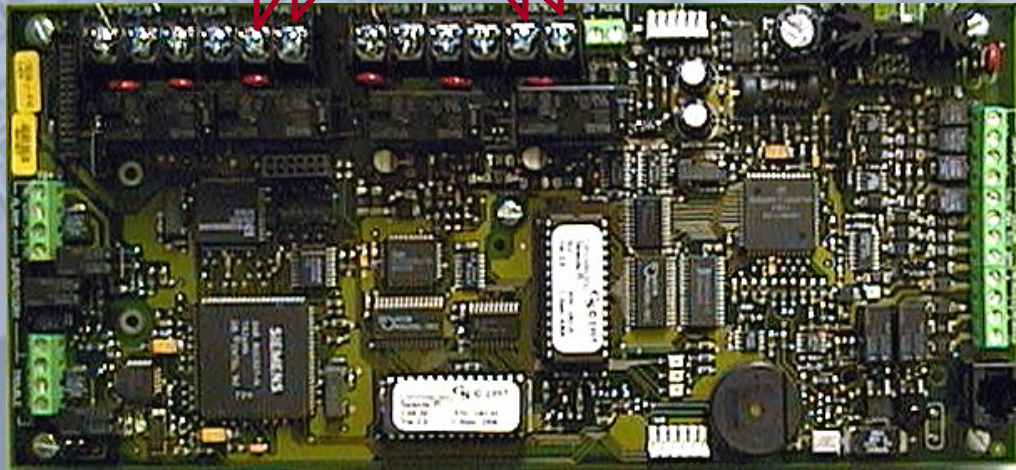
FROM
2-MCM

2-LCX Expander Loop Module

A. Additional Signature Loop Controller

1. Interfaces with 2-MCM Control CPU.
2. Supports **96 Signature Detectors**,
3. Supports **94 Signature Modules**
4. **Two hardwired NAC Circuits**
5. Defaulted audible
6. Class A or Class B
7. EOL Class A or Class B 15K Ohms
8. Maximum resistance and capacitance same as 2-MCM NAC's.

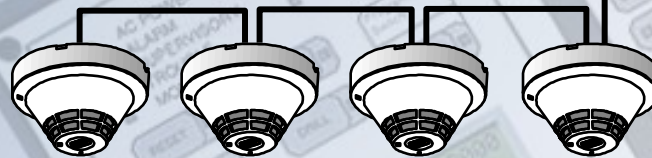
**24 VDC
From 2-PPS**



**NAC1
Audible Class A
15K EOL at Return
Terminals**



**NAC 2
Audible Class B
15K EOL at Device**



Signature Data Line



***Objects
Labels
Rules***

EST2 System Optional Modules

EST2 Networking

SDU Programming

MTM March Time Module



A. Provides the following tones:

- 1. 90 ppm March Time**
- 2. Temporal**
- 3. Morse "U"**

B. Requires 24 VDC for operation

IOP3 RS232 Isolator Card

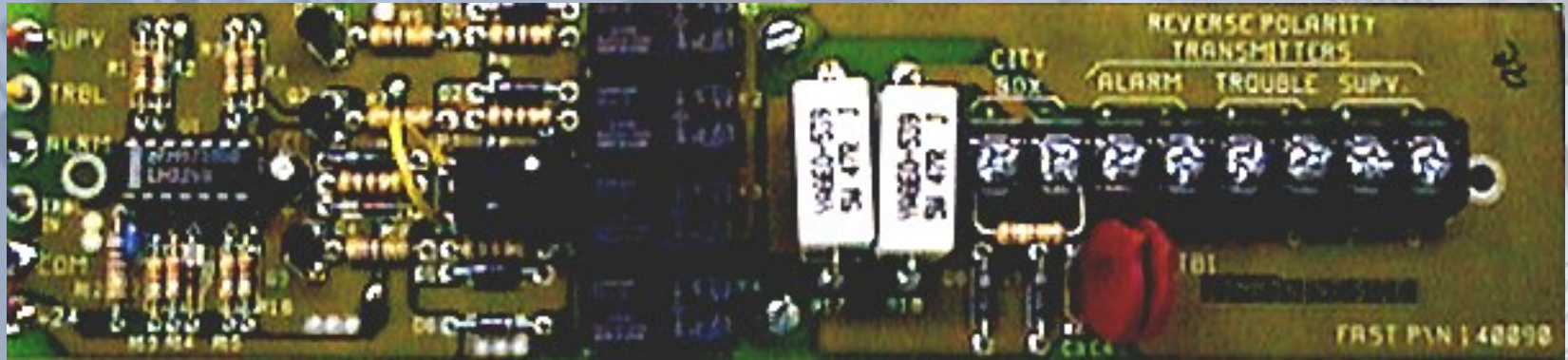


A. Isolates the 2-MCM RS-232 port from grounds introduced by peripheral devices.

B. Not required for printers, but recommended.

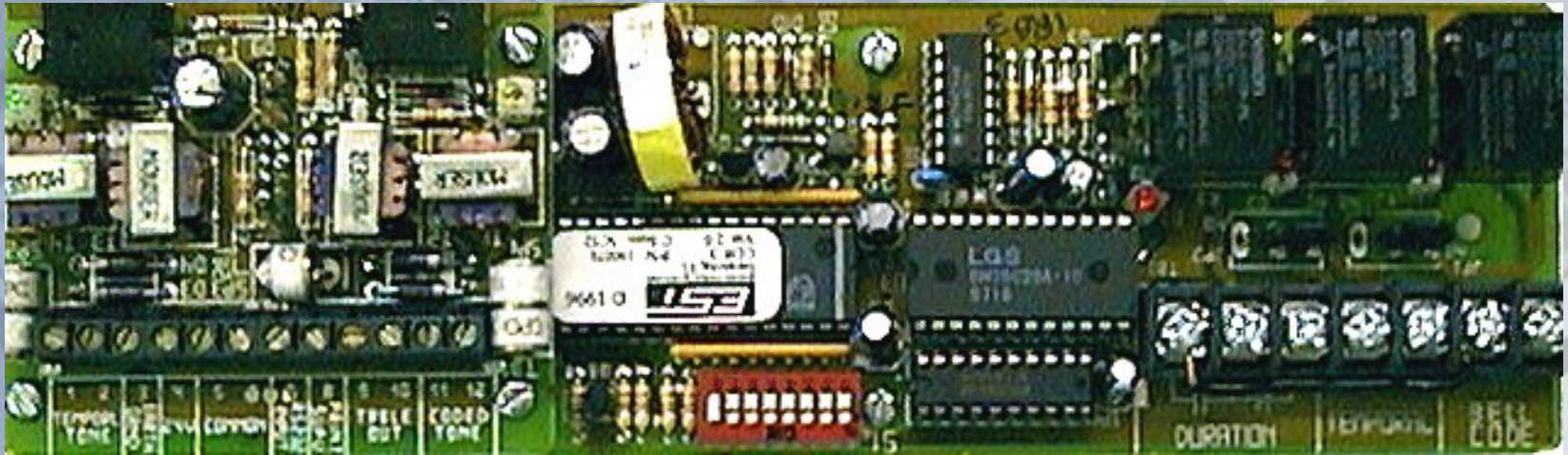
C. Required for all other RS-232 peripheral devices.

RPM Reverse Polarity Module



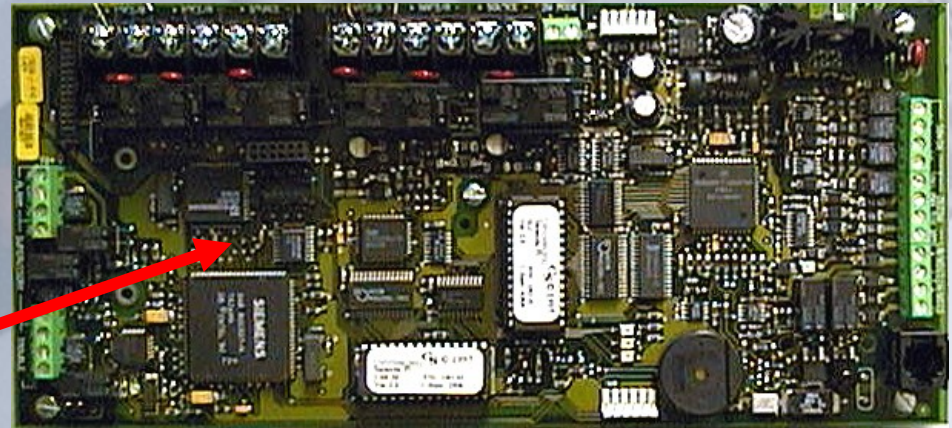
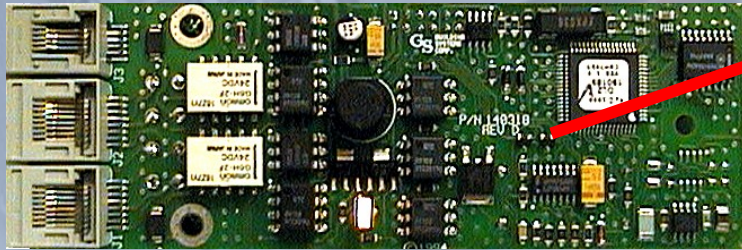
- A. Used for off premise notification.**
- B. Operates in conjunction with the Alarm, Supervisory, and Trouble contacts on the 2-MCM.**
- C. Requires a 2-CTM module when used with a City Box.**

CDR-3 Coder



- A. Used for in systems requiring coded audible devices.**
- B. Output may be coded dry contacts or coded 1KHz tone.**
- C. Code format may be 1 to 4 digits and last 4 rounds.**
- D. Operates on 24VDC.**
- E. Programmable in the EST2 System Definition Utility.**

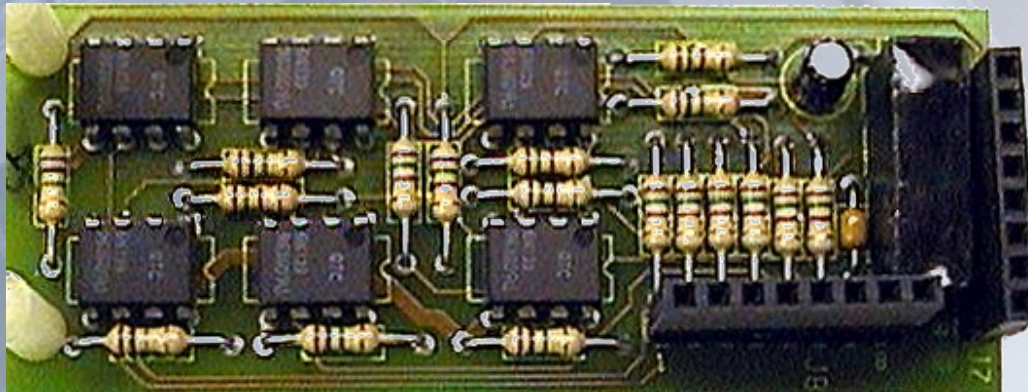
DL-2 Dual Line Dialer



2-MCM

- A. Digital Alarm Communicator.**
- B. Sends Alarm, Supervisory, and Trouble information to Central Station.**
- C. Dual Telephone Line hook up.**
- D. Supports 20 pps 3/2 and 4/2 formats.**
- E. Self-tests every 24 hours.**
- F. Mounts on 2-MCM.**

2-ISO Isolator Module



A. Mounts directly on the 2-MCM, J7 and J8 jumpers.

B. Isolates the 2-PPS from ground faults on the RS-485 Line.

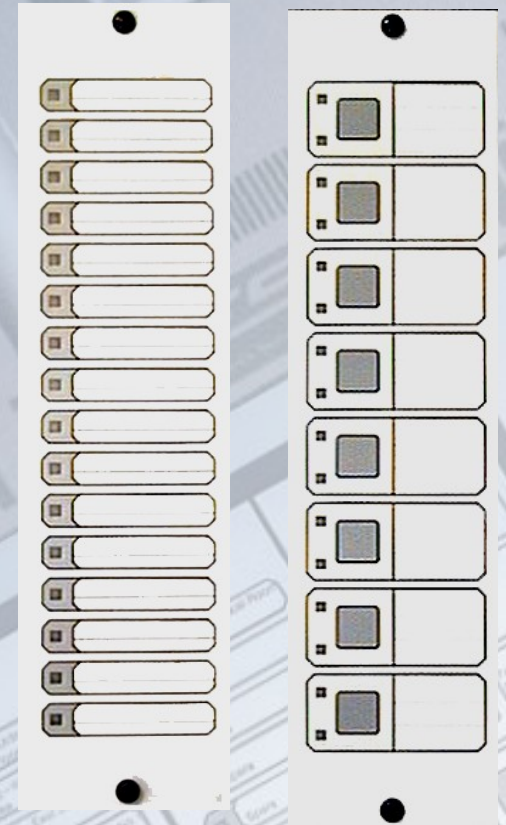
2-LED and 2-LED/Switch Panel

EST2 Annunciator Modules are available in two models:

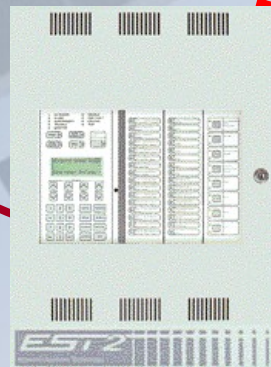
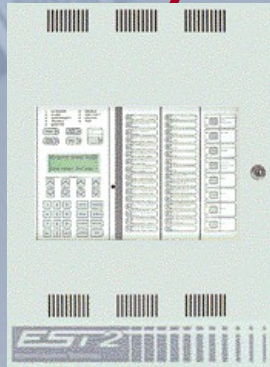
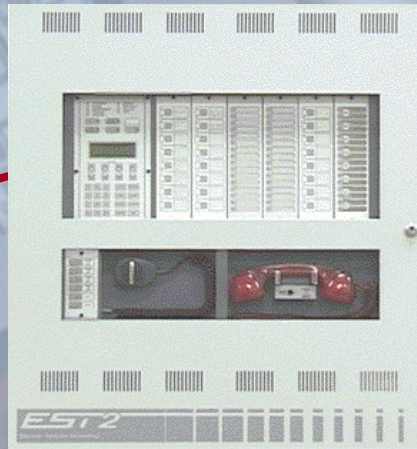
- 1. LED Module - 16 LED's with labels.**
- 2. LED/Switch Module - 16 LED's and 8 Switches with labels.**

These modules come in several part numbers depending upon the particular LED color desired.

Red, Green and Yellow are available for the LED Modules. Red and Yellow for LED/Switch Modules

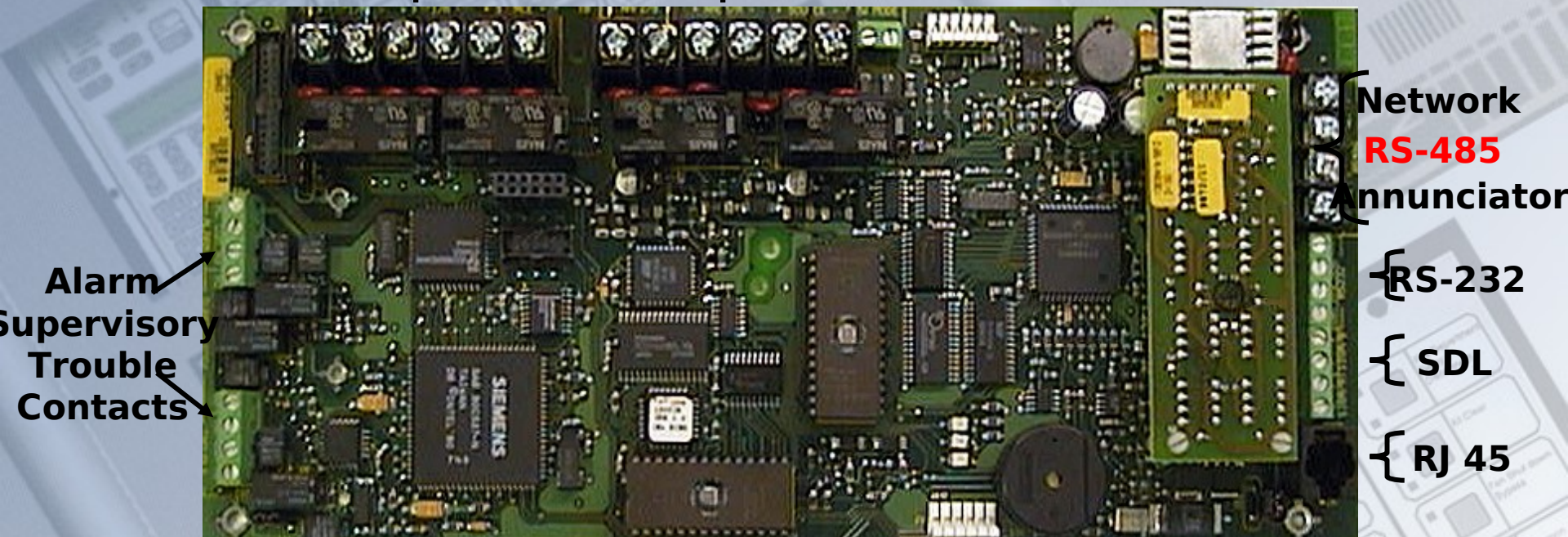


Network Components



MCMN Main Control Module Network

NAC 1 IN/OUT NAC 2 IN/OUT

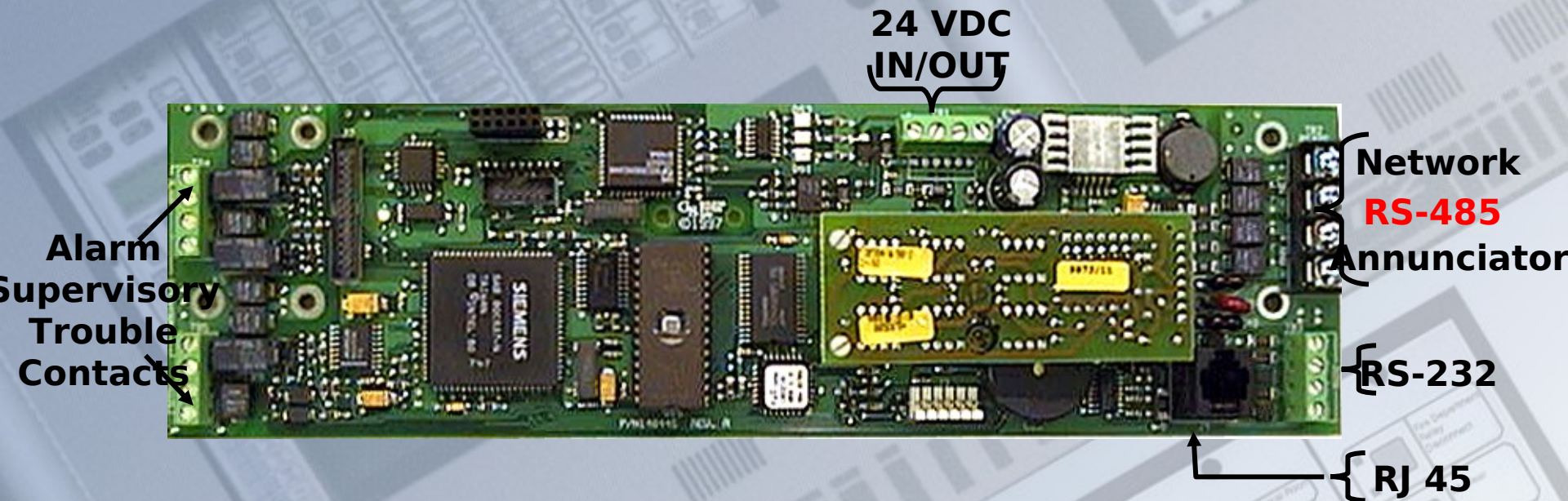


1. RS-485 Port is divided.
 - Network
 - Annunciators
2. RS-232 Port
 - Printer
 - Coder
 - Modem
3. Signature Data Line
4. RJ45 Jack
5. Alarm, Supervisory, Trouble Relays
6. NAC1 and NAC2

NOTE

Up to 5 2-MCM(N)'s may be installed on a Network
Node addresses will be 01 through 05

2-CPU Annunciator Control Module

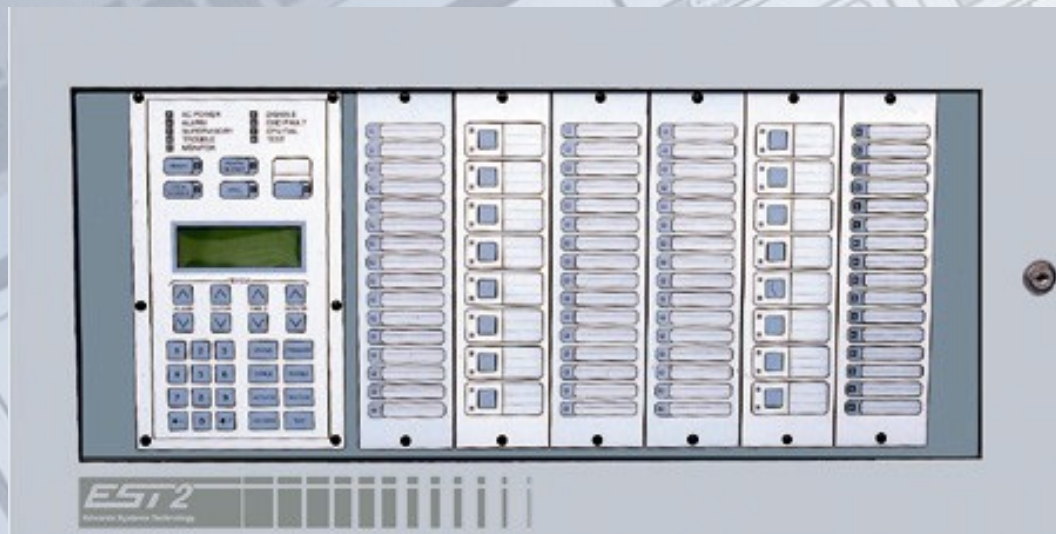


1. Primary interface unit for the EST2 2-ANN Remoter Annunciator Panel.
2. Requires 24 VDC power supply, with Node 485 address 16 to 10 and Annunciator accessories.
3. RS-232 port for printer, modem, and download.
4. Alarm, Supervisory, and Trouble contacts on the backplate of a Remote Annunciator Cabinet.
5. Available in two models: 2-3ANN and 2-6ANN.
6. 2-3ANN, one LCD Display panel and up to three LED/Switch Annunciators.
7. 2-6ANN, one LCD Display panel and up to six LED/Switch Annunciators.

-3ANN/2-6ANN Remote Annunciator Panel



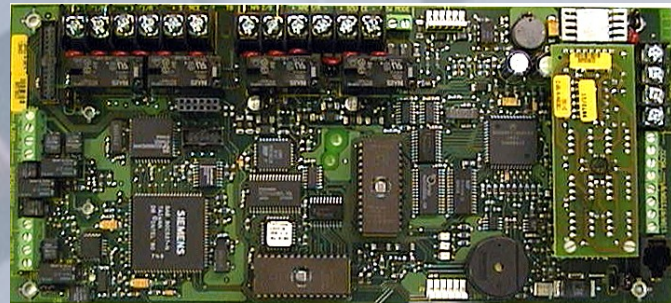
2-3ANN



2-6ANN

Class B Network Wiring Configuration

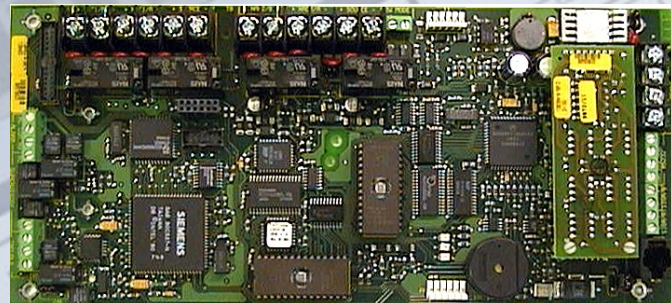
2-MCM(N) 01



2-CPU 06



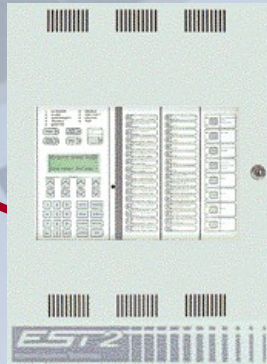
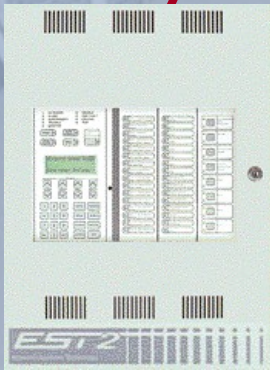
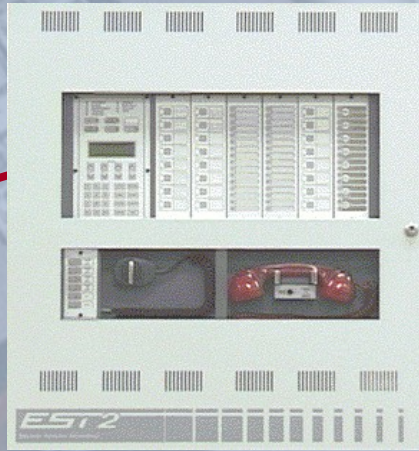
2-MCM(N) 02



2-CPU 07



Network Accessories



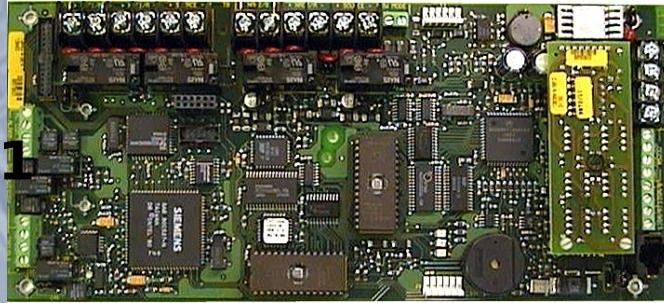
2-DLM Data Line Monitor



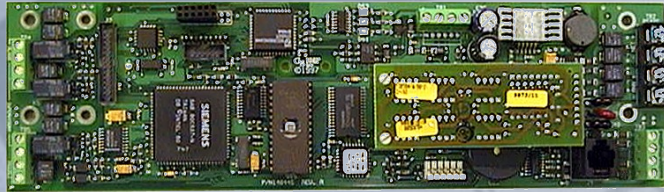
1. Designed to provide Class A (Style 6) communications for the EST2 RS-485 risers.
2. Works on both Network or Annunciator RS-485 lines.
3. Requires 24VDC from a remote power supply.
4. Half footprint module:
 - Snaps on backplate of 2-ANN cabinet.
 - Snaps on side stand-offs of the 2-WB Series cabinets.

Class A RS-485 Network Configuration

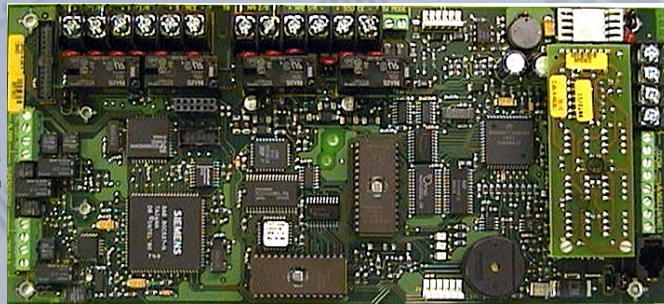
2-MCM(N) 01



2-CPU 06



2-MCM(N) 02



2-CPU 07

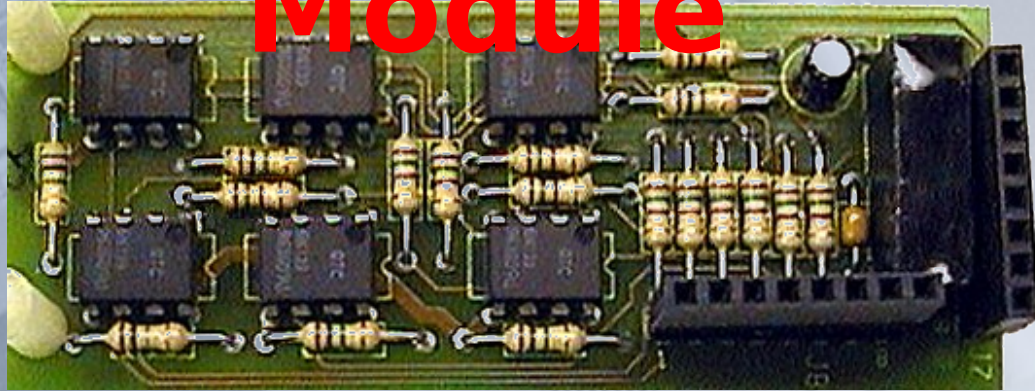


24 VDC



2-DLM

2-ISO Isolator Module



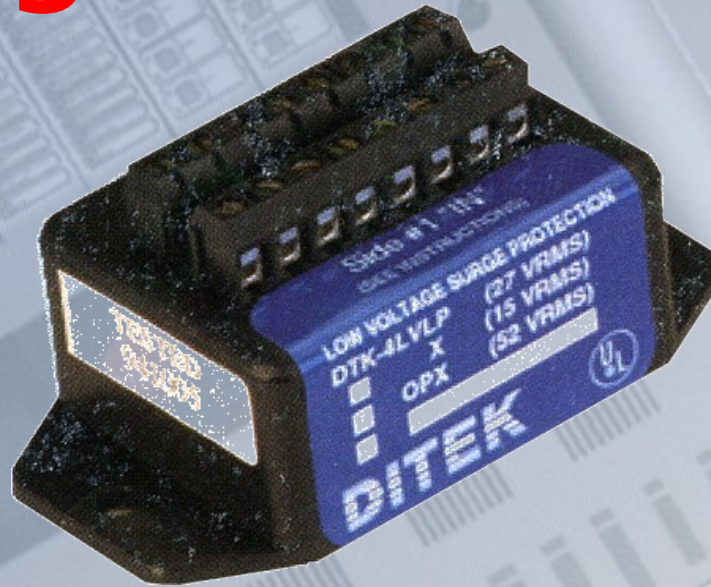
Provides electrical isolation between the RS-485 Line and the panel's primary power supply.

Mounts directly onto a set of jumpers on the 2-MCMN or 2-CPU.

In Network configuration, the 2-ISO must be mounted on each 2-MCM(N) and 2-CPU.

Included as standard equipment on the 2-MCM(N) and 2-CPU.

Ditek Surge Protector Module



- 1. In accordance with NFPA 72, any signaling line circuit exiting one building and entering another must have surge protection at the exit and entrance points.**
- 2. The Ditek Surge Protection Module is designed for surge protection for circuits, fuses, and wiring.**
- 3. It may be mounted in a standard grounded metal electrical box.**

Objects
Labels
Rules

EST2 System Components

2-ANN

2-MCMN

EST2 Networking

SDU Programming